

Product datasheet

Anti-Calsequestrin 2 antibody [EPR4228] ab108381

Recombinant RabMAb

11 Images

Overview

Product name	Anti-Calsequestrin 2 antibody [EPR4228]
Description	Rabbit monoclonal [EPR4228] to Calsequestrin 2
Host species	Rabbit
Tested applications	Suitable for: WB, IHC-P
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	Human heart and Human skeletal muscle lysates, Human cardiac muscles and Human skeletal muscles tissues
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p> <p>Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle. Stable for 12 months at -20°C.
Storage buffer	<p>pH: 7.20</p> <p>Preservative: 0.01% Sodium azide</p> <p>Constituents: 40% Glycerol (glycerin, glycerine), 59% PBS, 0.05% BSA</p>
Purity	Protein A purified
Clonality	Monoclonal

Clone number	EPR4228
Isotype	IgG

Applications

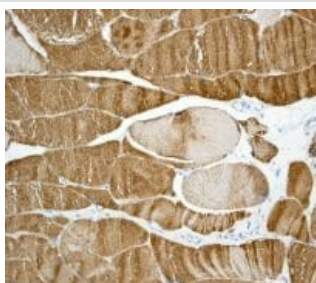
The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab108381 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/1000 - 1/10000. Detects a band of approximately 55 kDa (predicted molecular weight: 46 kDa).
IHC-P		1/100 - 1/250. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. See <u>IHC antigen retrieval protocols</u> .

Target

Function	Calsequestrin is a high-capacity, moderate affinity, calcium-binding protein and thus acts as an internal calcium store in muscle. The release of calcium bound to calsequestrin through a calcium release channel triggers muscle contraction. Binds 40 to 50 moles of calcium.
Involvement in disease	Defects in CASQ2 are the cause of catecholaminergic polymorphic ventricular tachycardia type 2 (CPVT2) [MIM:611938]; also known as stress-induced polymorphic ventricular tachycardia (VTSIP). CPVT2 is an autosomal recessive form of arrhythmogenic disorder characterized by stress-induced, bidirectional ventricular tachycardia that may degenerate into cardiac arrest and cause sudden death.
Sequence similarities	Belongs to the calsequestrin family.
Cellular localization	Sarcoplasmic reticulum lumen. This isoform of calsequestrin occurs in the sarcoplasmic reticulum's terminal cisternae luminal spaces of cardiac and slow skeletal muscle cells.

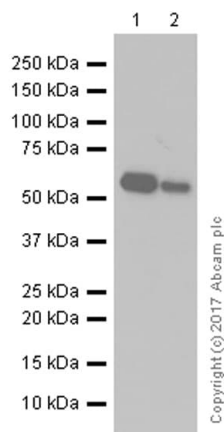
Images



Immunohistochemical analysis of paraffin-embedded Human skeletal muscles using unpurified ab108381 at a dilution of 1/100.

Heat mediated antigen retrieval was performed before commencing with IHC staining protocol.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Calsequestrin 2 antibody [EPR4228] (ab108381)



Western blot - Anti-Calsequestrin 2 antibody
[EPR4228] (ab108381)

All lanes : Anti-Calsequestrin 2 antibody [EPR4228] (ab108381) at 1/10000 dilution (purified)

Lane 1 : Human fetal heart lysates

Lane 2 : Human skeletal muscle lysates

Lysates/proteins at 20 µg per lane.

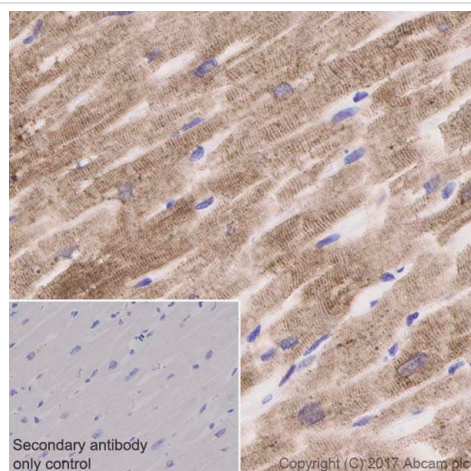
Secondary

All lanes : Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG at 1/2000 dilution

Predicted band size: 46 kDa

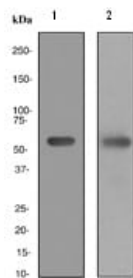
Observed band size: 55 kDa

Blocking and diluting buffer: 5% NFDM/TBST



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Calsequestrin 2 antibody
[EPR4228] (ab108381)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human cardiac muscle tissue sections labeling Calsequestrin 2 with Purified ab108381 at 1:250 dilution (0.5 µg/ml). Heat mediated antigen retrieval was performed using EDTA Buffer, pH9.0. Tissue was counterstained with Hematoxylin. ImmunoHistoProbe one step HRP Polymer (ready to use) secondary antibody was used at 1:0 dilution. PBS instead of the primary antibody was used as the negative control.



Western blot - Anti-Calsequestrin 2 antibody
[EPR4228] (ab108381)

All lanes : Anti-Calsequestrin 2 antibody [EPR4228] (ab108381) at
1/1000 dilution (unpurified)

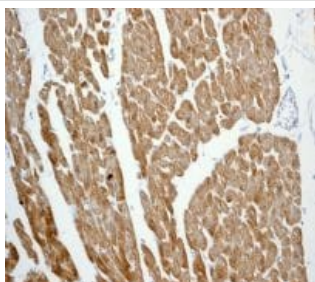
Lane 1 : Human heart lysate

Lane 2 : Human skeletal muscle lysate

Lysates/proteins at 10 µg per lane.

Predicted band size: 46 kDa

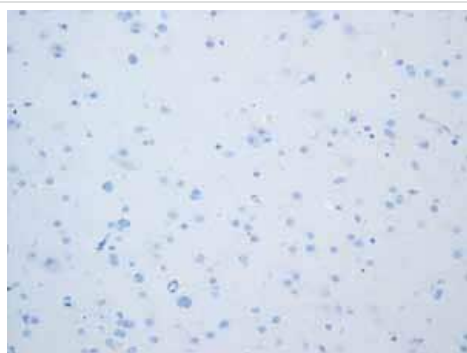
Observed band size: 55 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-
embedded sections) - Anti-Calsequestrin 2 antibody
[EPR4228] (ab108381)

Immunohistochemical analysis of paraffin-embedded Human
cardiac muscles using unpurified ab108381 at a dilution of 1/100.

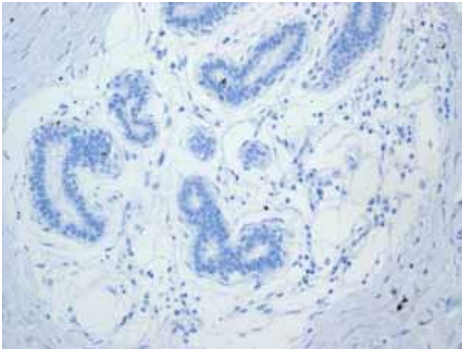
Heat mediated antigen retrieval was performed before
commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-
embedded sections) - Anti-Calsequestrin 2 antibody
[EPR4228] (ab108381)

Unpurified ab108381 showing negative staining in Normal brain
tissue.

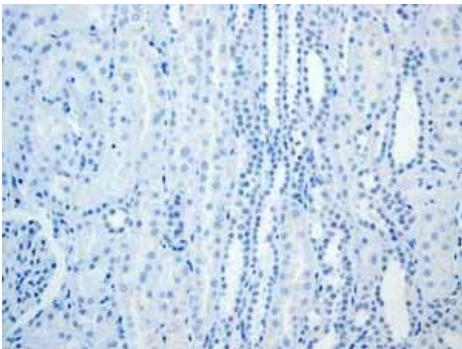
Heat mediated antigen retrieval was performed before
commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Calsequestrin 2 antibody [EPR4228] (ab108381)

Unpurified ab108381 showing negative staining in Normal breast tissue.

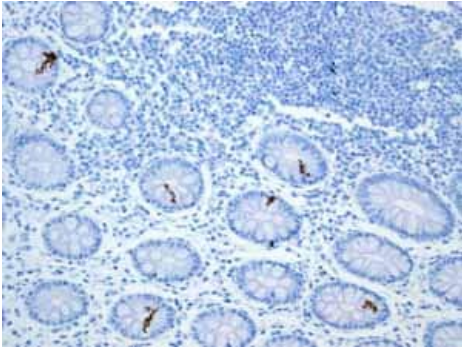
Heat mediated antigen retrieval was performed before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Calsequestrin 2 antibody [EPR4228] (ab108381)

Unpurified ab108381 showing negative staining in Normal kidney tissue.

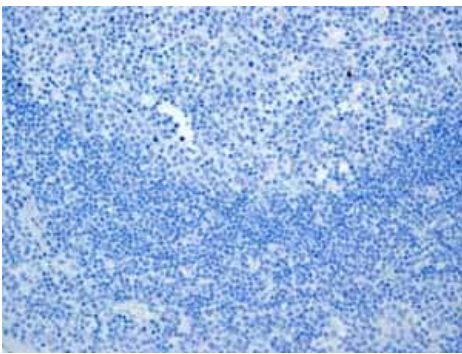
Heat mediated antigen retrieval was performed before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Calsequestrin 2 antibody [EPR4228] (ab108381)

Unpurified ab108381 showing negative staining in Normal colon tissue.

Heat mediated antigen retrieval was performed before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Calsequestrin 2 antibody [EPR4228] (ab108381)

Unpurified ab108381 showing negative staining in Normal tonsil tissue.

Heat mediated antigen retrieval was performed before commencing with IHC staining protocol.

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Anti-Calsequestrin 2 antibody [EPR4228] (ab108381)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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